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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,718	01/09/2006	Feliciano Cecchi	05788.0352	8747

22852 7590 04/02/2007

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EXAMINER	
LEPISTO, RYAN A	
ART UNIT	**PAPER NUMBER**
2883	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,718	CECCHI ET AL.	
	Examiner	Art Unit	
	Ryan Lepisto	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/27/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Priaroggia (US 4,722,588)** in view of **Hofner (US 2001/0051030 A1)**.

Priaroggia teaches an optical cable (Fig. 2) comprising a two optical cores (first and section sections) having a central strength member (18, 19), a plurality of optical fibers (26), a thermoplastic polymeric material (21, 22) disposed around the strength member (18, 19) and surrounding the fibers (26) via embedding the grooves (24, 25) and a protective layer (20) (which can be polyolefin, curable) disposed around the cores at a joint (third) section (14) and embedding the fibers (26) in the joint section wherein the two cables/sections are spliced together by removing the materials around the fibers and strength members for exposing the components for splicing where all three sections have equal diameters (column 4 lines 28-68).

Priaroggia does not teach expressly the polymeric material directly embedding the fibers.

Hofner teaches an optical cable (Fig. 3) comprising a buffer tube (10) having optical fibers (12) loosely fitted inside the tube (10) surrounded by a gel in which the

fibers (12) are described as being embedded in the tube (10) even through the tube material does not directly touch the fibers (12) (paragraph 0028).

Priaroggia and Hofner are analogous art because they are from the same field of endeavor, optical fiber cables.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art that even though fiber may be held in a buffer that is embedded in a surrounding material it is obvious that this can be seen as embedding the fibers since embedding a tube with multiple fiber holds the fiber in relative space inside the tube at that location just as embedding the fiber without out a buffer tube directly into surround material as evidenced by Hofner.

The motivation for doing so would have been to increase water blocking characteristics of the fiber and to be able to include multiple fibers in a single cable location by using a buffer tube in combination with a water blocking gel inside the tube to embed the fiber in the cable via embedding the tube.

Claims 16-19 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Priaroggia in view of Hofner as applied to claims 15, 20 and 21 above, and further in view of **Leggett (US 6,351,589 B1)**.

Priaroggia in view of Hofner teaches the cable previously discussed.

Priaroggia in view of Hofner does not expressly teach a protective layer having the properties of claims 16-19 and 23-26

Leggett teaches that optical cables are commonly coated with UV curable polymide like a Desolite 3471 material, which is known to have a modulus of elasticity of between 40 and 150 MPa and a viscosity of between 1 and 100 Pas at 25°C.

Priaroggia in view of Hofner and Leggett are analogous art because they are from the same field of endeavor, optical fiber communications.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a Desolite 3471 as taught by Leggett as the protective material in the cable taught by Priaroggia in view of Hofner since Priaroggia in view of Hofner only specifies this material being a plastic (column 4 lines 32-33).

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

The motivation for doing so would have been to decrease environmental effects on the fiber by using a material that is not brittle or fragile and is relatively soft and tacky that can be used in either high temperatures or chemical environments (Leggett, column 1 lines 26-38).

Claims 22, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Priaroggia in view of Hofner as applied to claims 15, 20 and 21 above, and further in view of **Oldham et al (US 4,657,343)** (Oldham).

Priaroggia in view of Hofner teaches the cable previously discussed.

Priaroggia in view of Hofner does not expressly teach applying the coating with a movable device, the length of the fibers being slightly less than the length of the strength members or an assembly length of between 80 and 120 cm.

Oldham teaches jointing two optical cables (Fig. 3) wherein when splicing the fibers not all the fibers will result in the same length and therefore some fibers will be shorter than the rest and any protective member that is spliced (column 3 lines 34-39, column 4 lines 44-49) and wherein protective coating on fiber cables are often extruded around other layers (column 1 lines 37-40), which is known to used movable devices.

Priaroggia in view of Hofner and Oldham are analogous art because they are from the same field of endeavor, jointing optical cables.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use that splicing multiple fibers in a cable will result in imperfect lengths between fibers and strength members as is taught by Oldham and that coating are often extruded when forming cables.

At the time of the invention, it would have also been obvious to a person of ordinary skill in the art to vary the length of the jointing section depending on the need of the assembler or assembly techniques.

At the time the invention was made, it would obvious to a person of ordinary skill in the art to use any jointing length depending on the application of the cable. Applicant has not disclosed that the exact range of 80 to 120 cm provides an advantage, is used for a particular purpose, or solves a stated problem.

Priaroggia in view of Hofner and in further view of Oldham discloses the claimed invention except for this range. It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the length as needed, since it has been held that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). For more recent cases applying this principle, see Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990); and In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997).

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

The motivation for doing so would have been to reduce cost by using known manufacturing techniques like extruding and to reduce movement of fibers cables by pretensioning them during the splicing step that will result in different length fibers already.

Response to Arguments

Applicant's arguments with respect to claims 15, 20 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Lepisto whose telephone number is (571) 272-1946. The examiner can normally be reached on M-Th 7:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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